

EXECUTIVE SUMMARY

I-579, known as Crosstown Boulevard, connects to most of the attractions in and around downtown Pittsburgh, Pennsylvania, and to the main thoroughfares that lead to the city's neighborhoods and suburbs. In 2010, the Pennsylvania Department of Transportation (PennDOT), District 11-0, launched a \$38 million preservation program along the I-579 corridor to extend the life of 25 bridges and a 100-year-old retaining wall supporting the bluff occupied by Duquesne University. The bridges included the main spans of the Veterans Bridge over the Allegheny River, four overpasses, and ramp structures at the interchanges with S.R. 28 and the Boulevard of the Allies, which had deteriorated over time due to the age of the structures.

Bridge repairs included painting of the steel superstructure, deck repairs and replacements, structural steel repairs, concrete substructure repairs, bearing replacements, replacement of expansion dams, drainage system repairs, and retrofitting pin-and-hanger assemblies. Retaining wall repairs included hydrodemolition, shotcrete, and waterproof coating. PennDOT let the construction contracts for the repairs to the structures in two phases.

Despite the challenges posed by working in a constrained urban area in heavy traffic and the need to coordinate with multiple stakeholders, the project team worked on a very aggressive schedule and completed the design and construction in less than four years. In addition to extending the functional life of the structures by at least 25 years, the project improved pedestrian flow along Centre Avenue near the CONSOL Energy Center and tested the use of a new class of concrete for the deck replacements.